

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

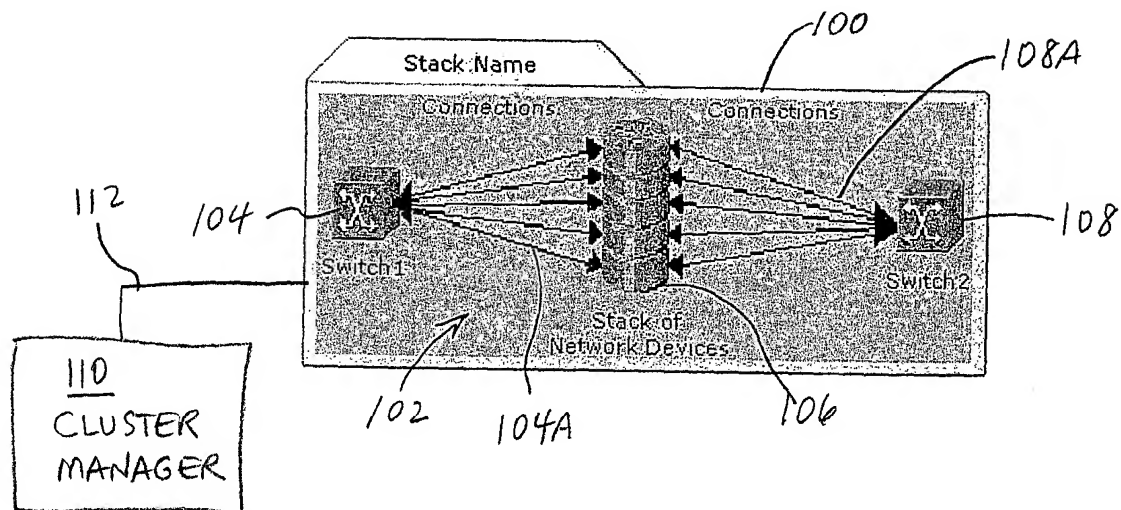
Inventor(s): Arnold Stamler, et al.

Docket No. 50325-0819 Express Mail Label # EV323354870US

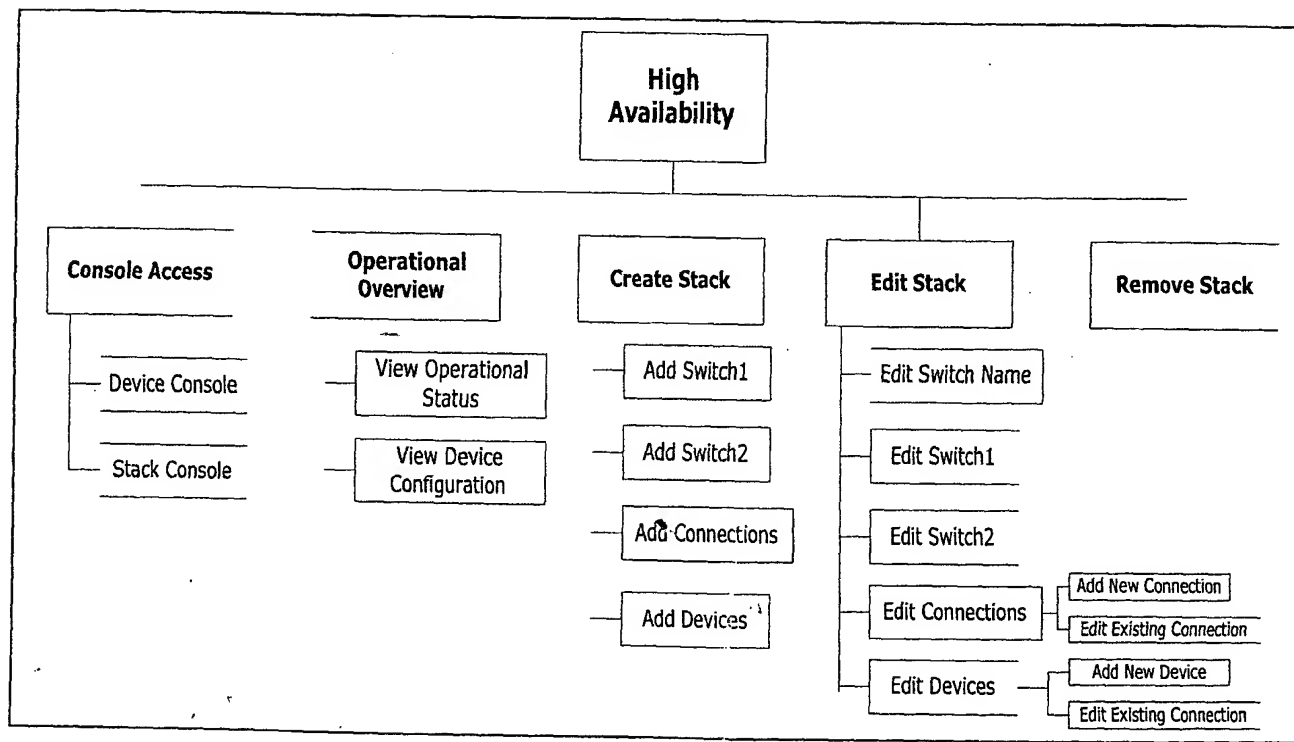
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Date of Deposit: September 15, 2003

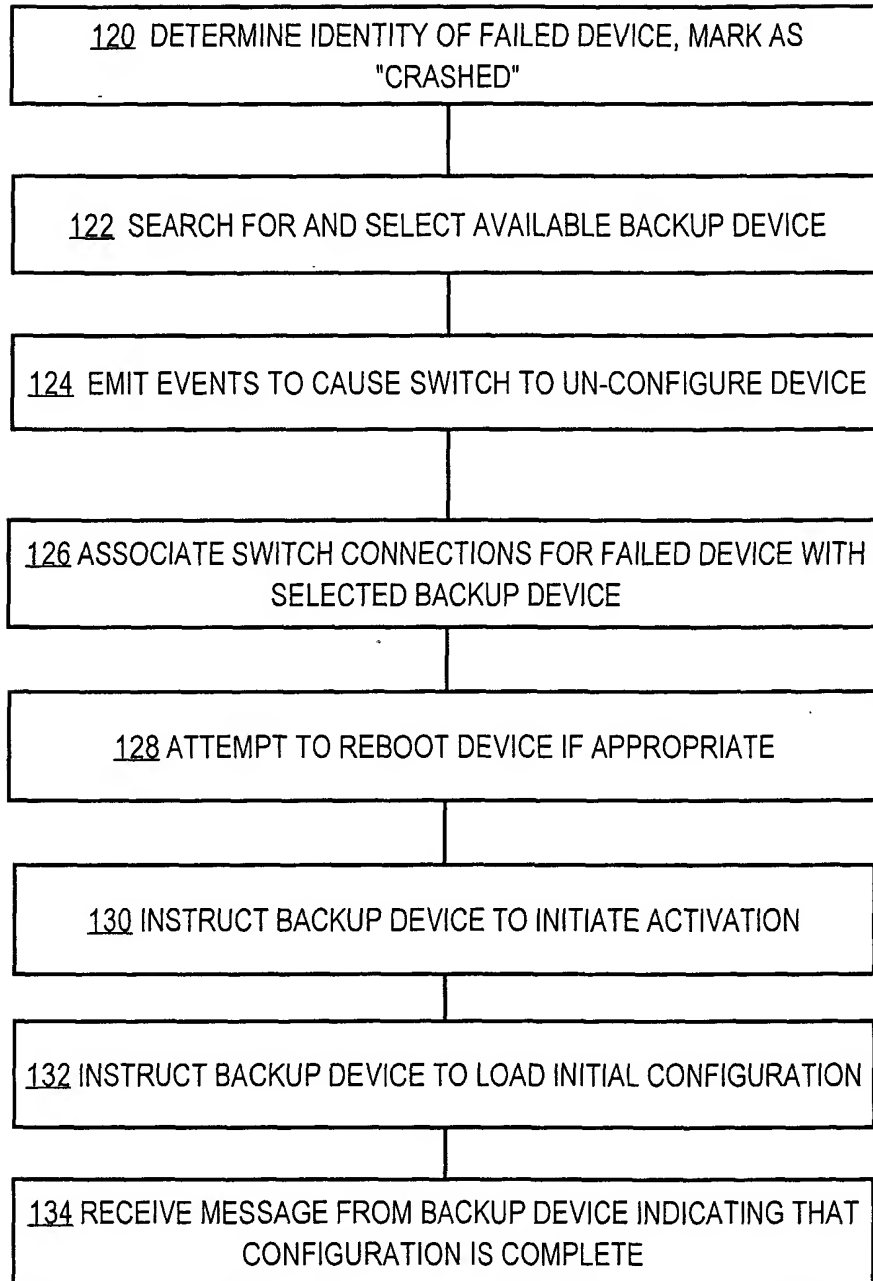
**Fig. 1 A**



**Fig. 3**



*Fig. 1B*



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

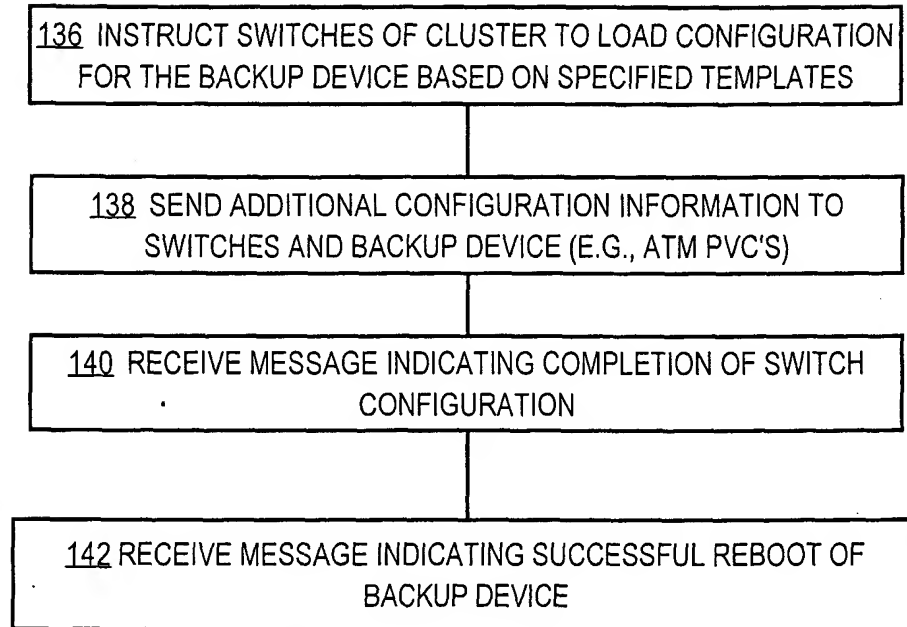
Inventor(s): Arnold Stampler, et al.

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*Fig. 1C*



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

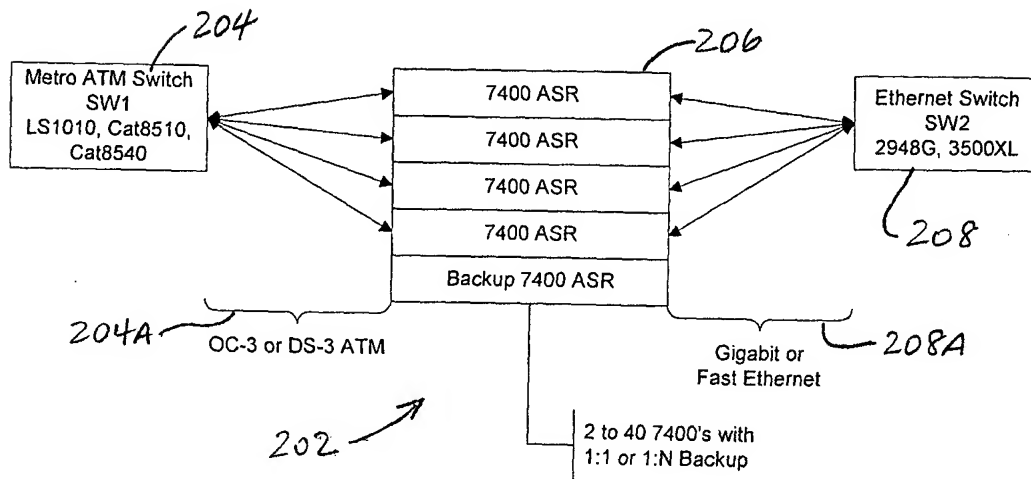
Inventor(s): Arnold Stamler, et al.

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Fig. 2



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

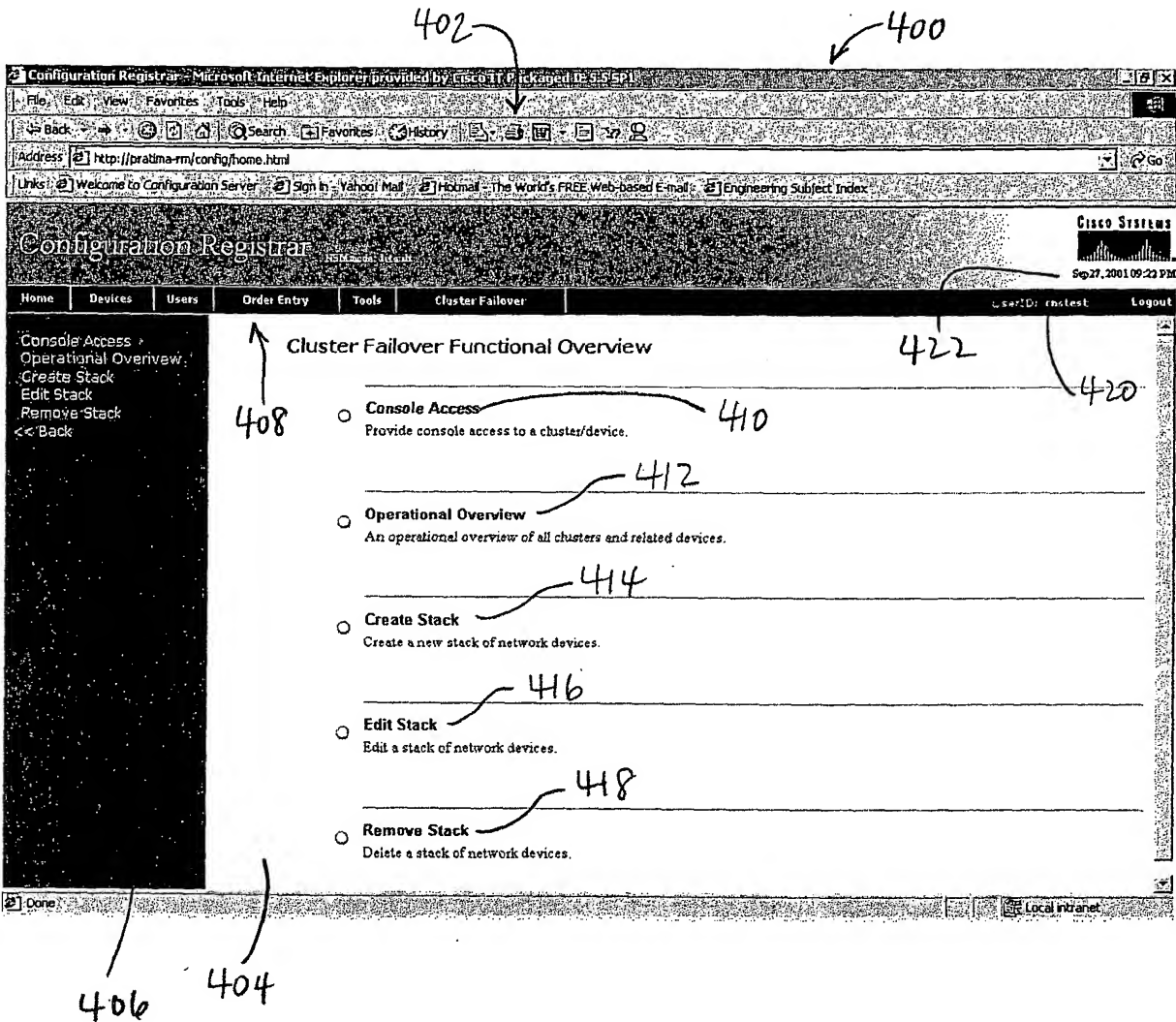
Inventor(s): Arnold Stamler, et al.

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Fig. 4



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 5

Configuration Registrar: Microsoft Internet Explorer provided by Cisco IT Packages IE5.5 SP1

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address: http://praline-rn/config/home.html

Links: Welcome to Configuration Server Sign in - Yahoo! Mail Home! - The World's FREE Web-based E-mail Engineering Subject Index

Configuration Registrar

Cisco Systems  
Sep 28, 2001 06:05 PM

Home Devices Users Order Entry Tools Cluster Failover User ID: cnstest Logout

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

### Creating Stack

Please enter a stack name to begin creating a stack. Click "Ok" to add switches, devices, and connections to this stack.

Stack Name (required)	Stack1
Mechanism for Assigning Connections	<input checked="" type="radio"/> Load balancing <input type="radio"/> Fill each device
Number of Devices Reserved as Backup (required)	2

☒ Reboot failed devices and place in backup pool after failover.

502

504

506

508

510

512

514

Ok Reset

Done Local intranet

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Starnler, et al.

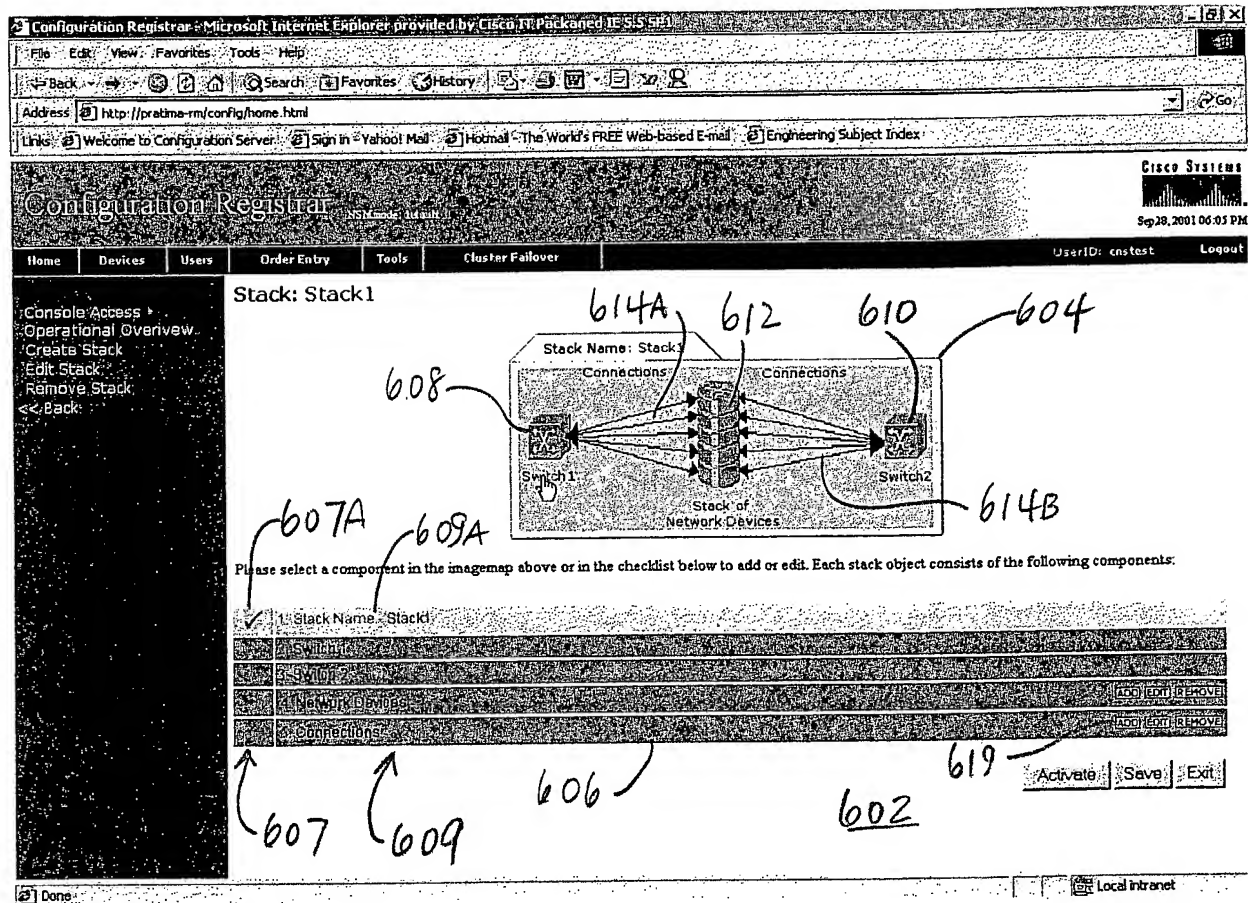
Docket No. 50325-0819

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Fig. 6



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

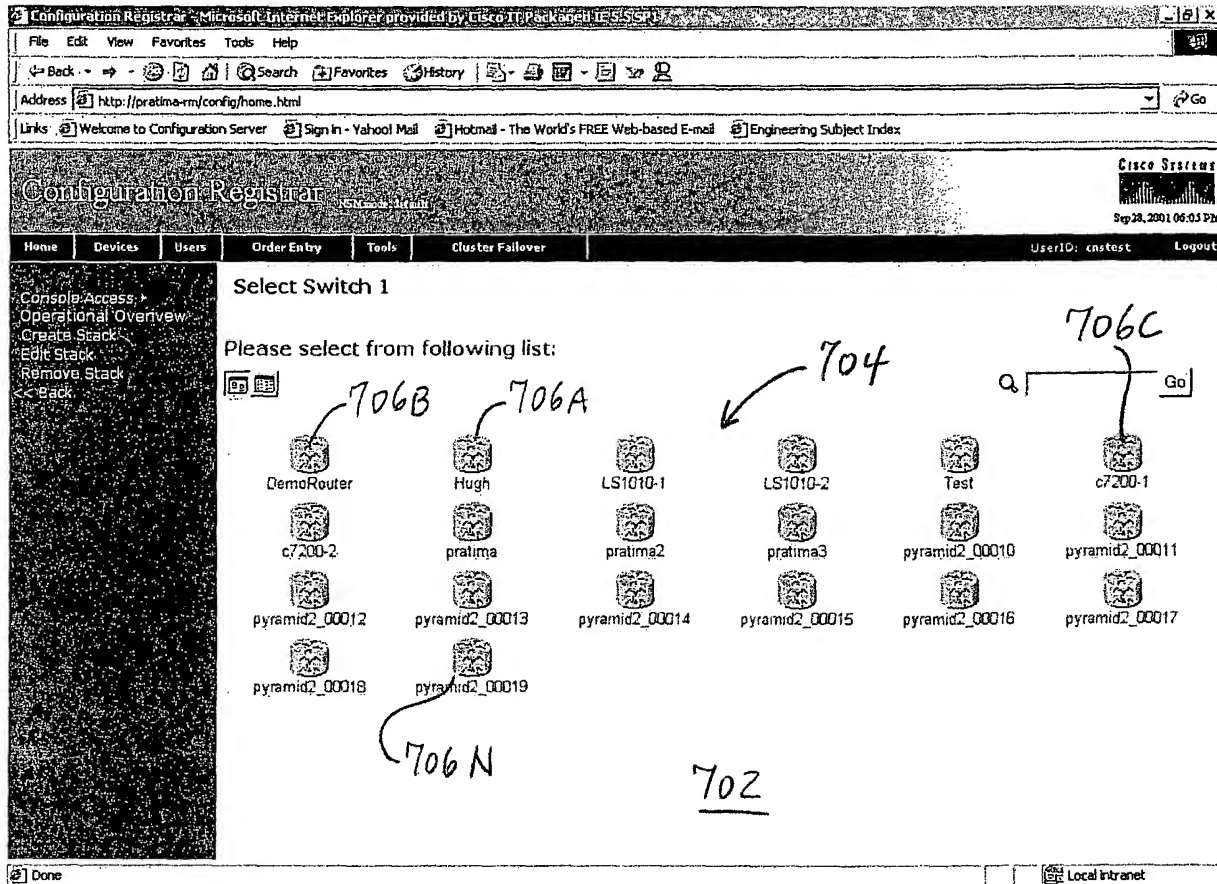
Inventor(s): Arnold Stamler, et al.

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Fig. 7





Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

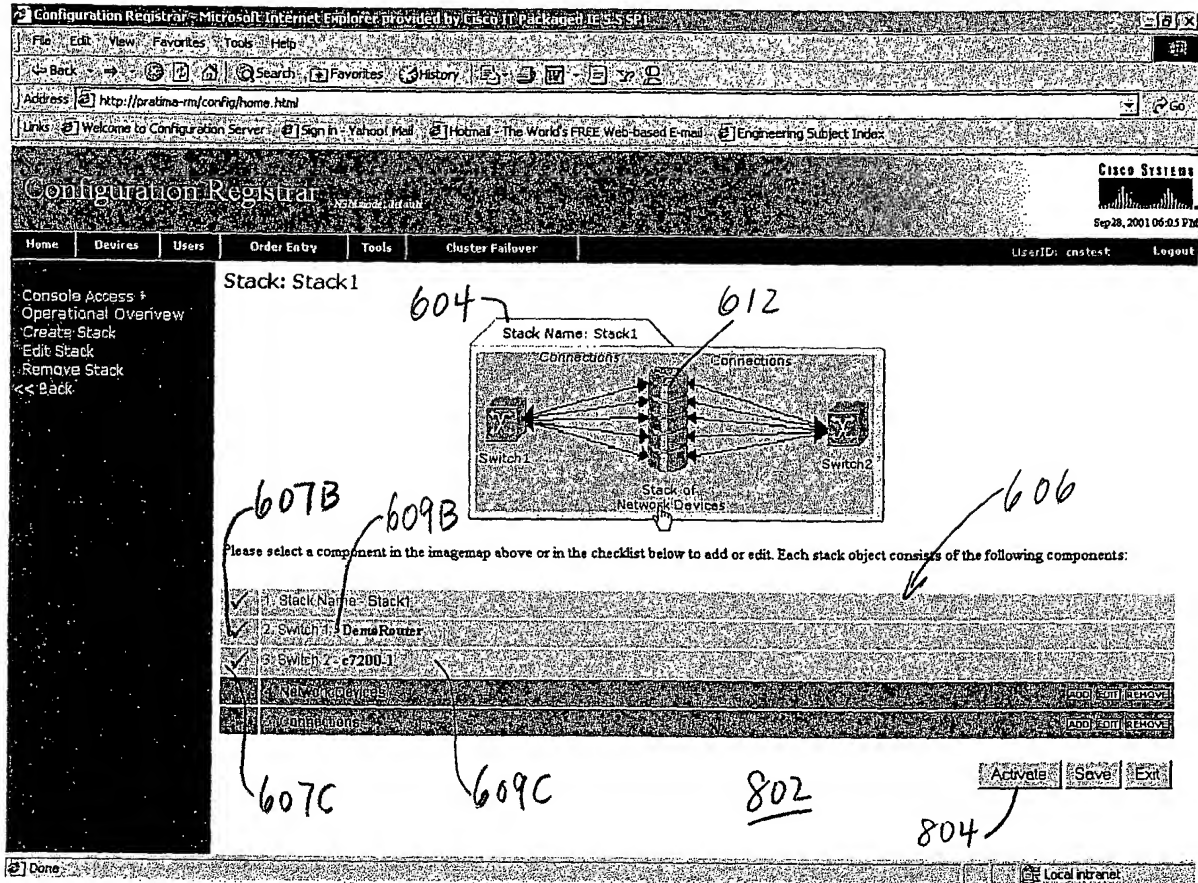
Inventor(s): Arnold Stamler, et al.

Docket No. 50325-0819 Express Mail Label # EV323354870US

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Date of Deposit: September 15, 2003

Fig. 8



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

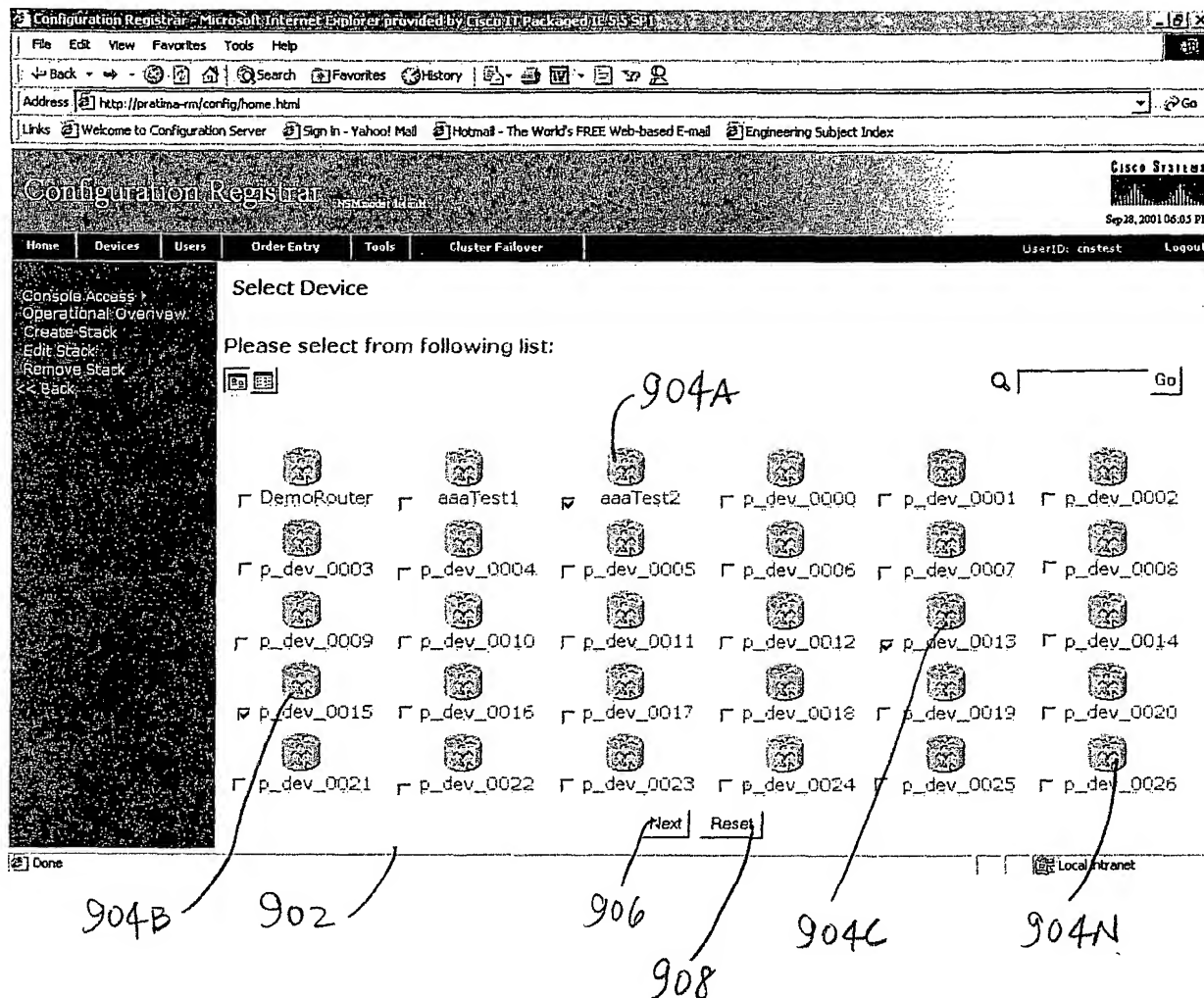
Inventor(s): Arnold Stamler, et al.

Docket No. 50325-0819 Express Mail Label # EV323354870US

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Fig. 9



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 10

1000

1002

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IEPackaged IE 5.5 SP1

File Edit View Favorites Tools Help

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Address http://prattina-rm/config/home.html

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Configuration Registrar

Cisco Systems

Sep 28, 2001 06:03 PM

Home Devices Users Order Entry Tools Cluster Failover User ID: cnstest Logout

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

Add Selected Devices to Stack1

Template File Name for Configuring Switch 1: (required) Template1.dgtp 1004

Template File Name for Configuring Switch 2: (required) Template3.dgtp 1008

Template File Name for Unconfiguring Switch 1: (required) Template2.dgtp 1006

Template File Name for Unconfiguring Switch 2: (required) Template4.dgtp 1010

Device Name: DemoRouter

Switch 1: 1012A

Interface Name: 1014A

Option1: 1016A

Option2: 1018

Option3: 1012A

Telnet Information:

Maximum Number of Connections Allowed: 1020

Device Name: Test

Switch 1: 1012B

Interface Name:

Switch 2:

Interface Name:

Done Local intranet

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 11

Configuration Registrar - Microsoft Internet Explorer, provided by Cisco IT Packaged IES5 SP1

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print Home

Address http://prattina-rm/config/home.html

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Configuration Registrar

Cisco Systems  
Sep 28, 2001 06:03 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Stack: Stack1

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

Stack Name: Stack1

Connections

Switch1

Stack of Network Devices

Switch2

Connections

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

<input checked="" type="checkbox"/>	1. Stack Name: Stack1	
<input checked="" type="checkbox"/>	2. Switch 1: DemoRouter	
<input checked="" type="checkbox"/>	3. Switch 2: c7200-1	
<input checked="" type="checkbox"/>	4. Network Devices: 5 devices	ADD EDIT REMOVE
<input checked="" type="checkbox"/>	5. Connections	ADD EDIT REMOVE

Activate Save Exit

Done Local intranet

602

607D

609D

1102

1104

604

606

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al,

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Fig. 12

Configuration Registrar - Microsoft Internet Explorer provided by Cisco TFTPd (aged 165.539)

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History Print

Address http://pretime-rm/config/home.html

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Configuration Registrar

Cisco Systems  
Sep 27, 2001 09:22 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
Back

Add New Connection to Stack1

Connection Number (required) 1202

Attribute 1 1204

Attribute 2 1206

Attribute 3 1208

Attribute 4 1210

Method of Connection Provisioning:  
☐ Immediate  
☐ Upon PVC Activation

Template File Name for Configuring Network Device: 1212  
Template1.cfgtpl

Template File Name for Unconfiguring Network Device: 1214  
Template2.cfgtpl

Template File Name for Configuring Switch 1: 1216  
Template3.cfgtpl

Template File Name for Unconfiguring Switch 1: 1218  
Template4.cfgtpl

Template File Name for Configuring Switch 2: 1220  
Template5.cfgtpl

Template File Name for Unconfiguring Switch 2: 1222  
Template6.cfgtpl

1200 1211

Ok Add Another Reset

1224 1226 1228

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 13

Configuration Registrar - Microsoft Internet Explorer provided by Cisco IT Packaged J2EE SP1

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print View Source

Address http://prattma-rm/config/home.html

Links Welcome to Configuration Server Sign in - Yahoo! Mail Hotmail - The World's FREE Web-based E-mail Engineering Subject Index

Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

UserID: ctest Logout

Stack: Stack1

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

Stack Name: Stack1

Switch1

Switch2

Stack of Network Devices

Connections

Connections

Stack Name: Stack1

Switch 1: DemoRaxter

Switch 2: c7200-1

Network Devices: 5 devices

Connections: 4 connections

Activate Save Exit

Done

Local intranet

614A

612

614B

604

608

610

606

621

607E

609E

602

619

804

1102

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

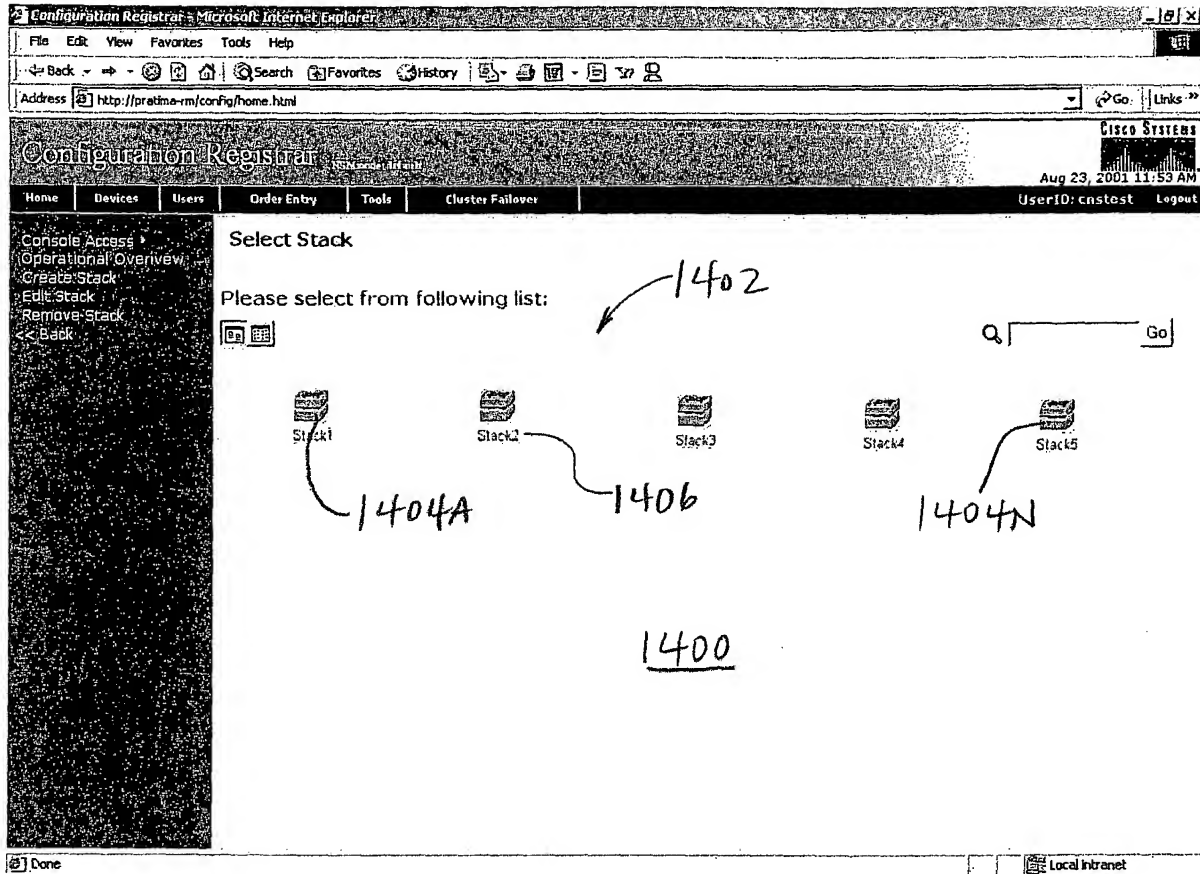
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Fig. 14





Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 15

Configuration Registrar - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address http://prattia-rm/config/home.html

Go Links

Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

Aug 23, 2001 11:53 AM

UserID: cnstest Logout

Console Access  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

Stack: Stack1

Warning: This stack is currently inactive. To activate this stack, please press this button >>

Stack Name: Stack1

Connections Connections

Switch1 Stack of Network Devices Switch2

Please select a component in the imagemap above or in the checklist below to add or edit. Each stack object consists of the following components:

✓	1. Stack Name - Stack1	
✓	2. Switch 1 - DemoRouter	
✓	3. Switch 2 - c7200-1	
	4. Network Devices	<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Remove"/>
	5. Connections	<input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Remove"/>

Done Local Intranet

1502

1504

604

1500

1506



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

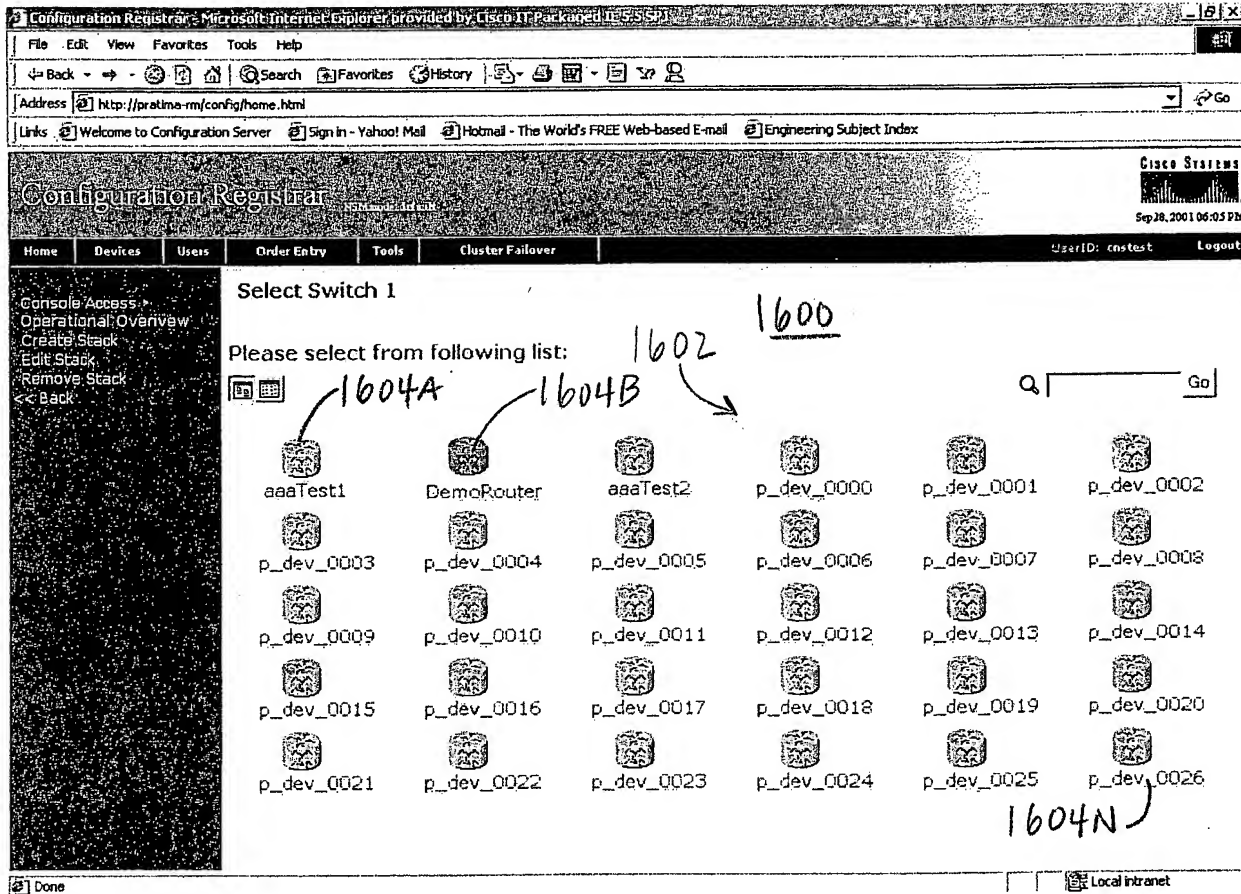
Inventor(s): Arnold Stamler, et al.

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Fig. 16



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

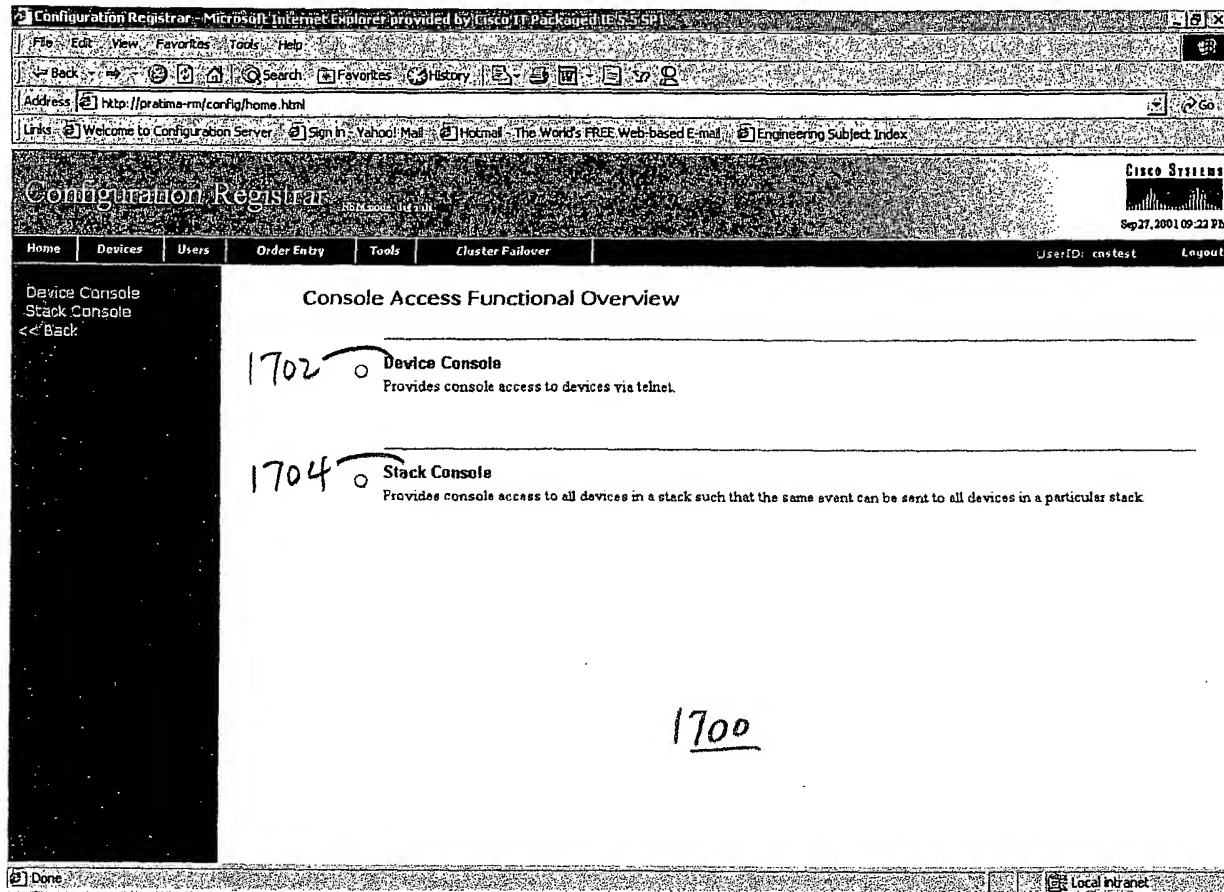
Inventor(s): Arnold Stamler, et al,

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Fig. 17



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

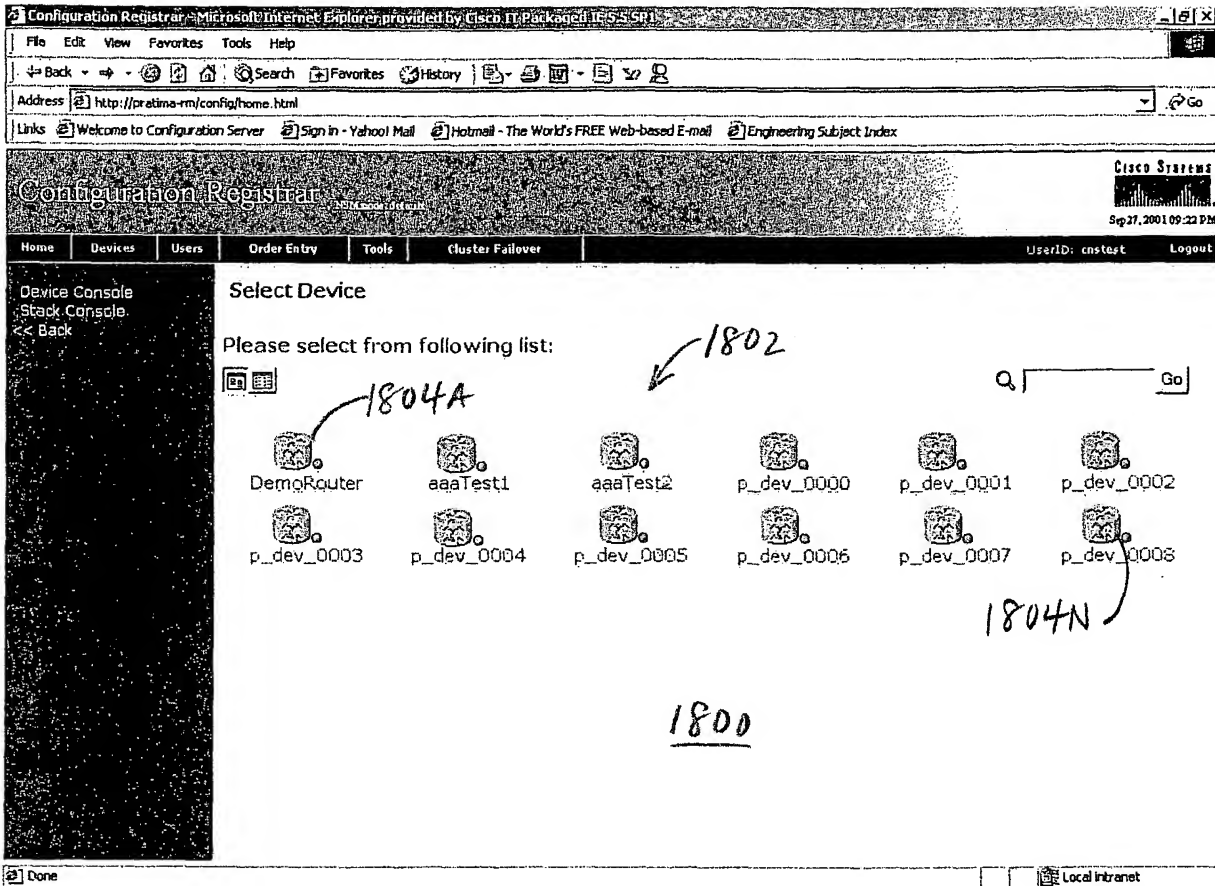
Inventor(s): Arnold Stamler, et al.

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Fig. 18



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

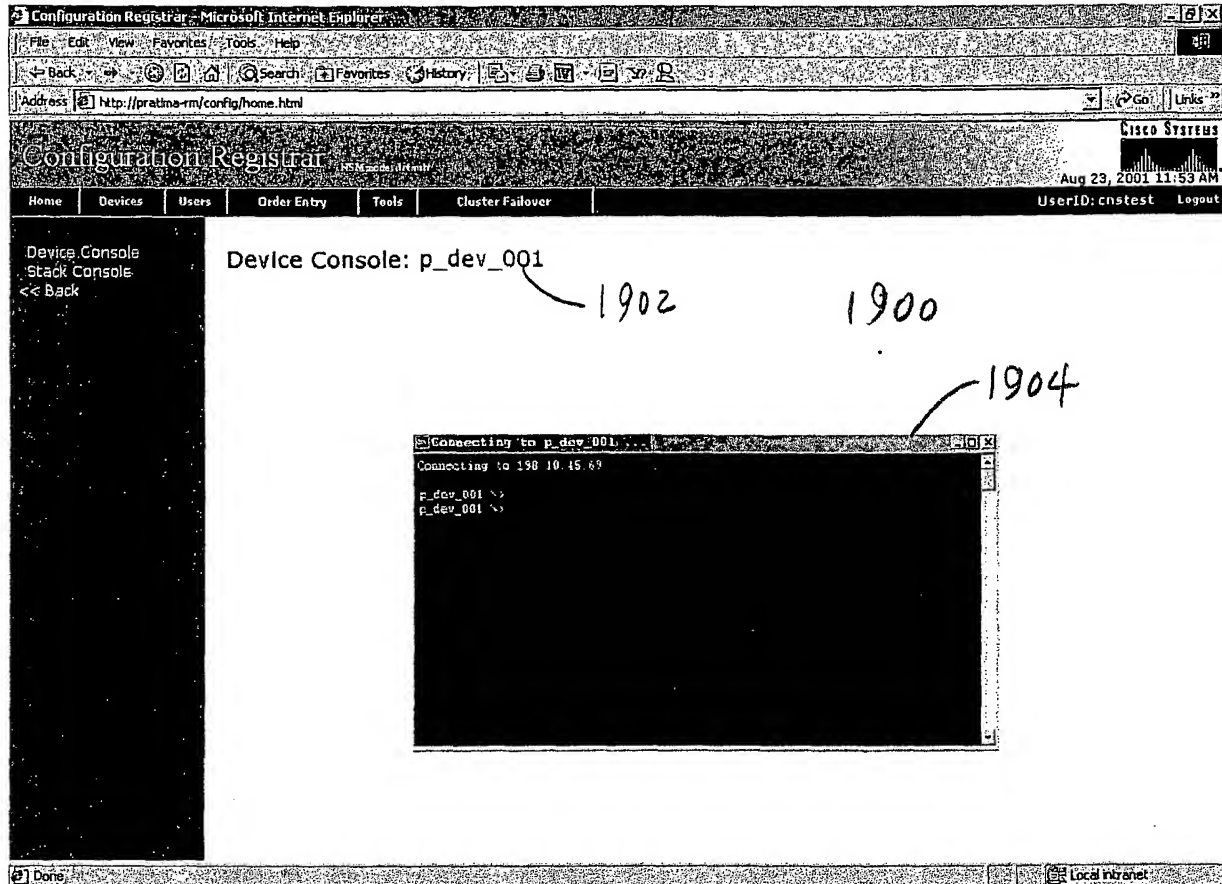
Inventor(s): Arnold Stamler, et al.,

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Fig. 19

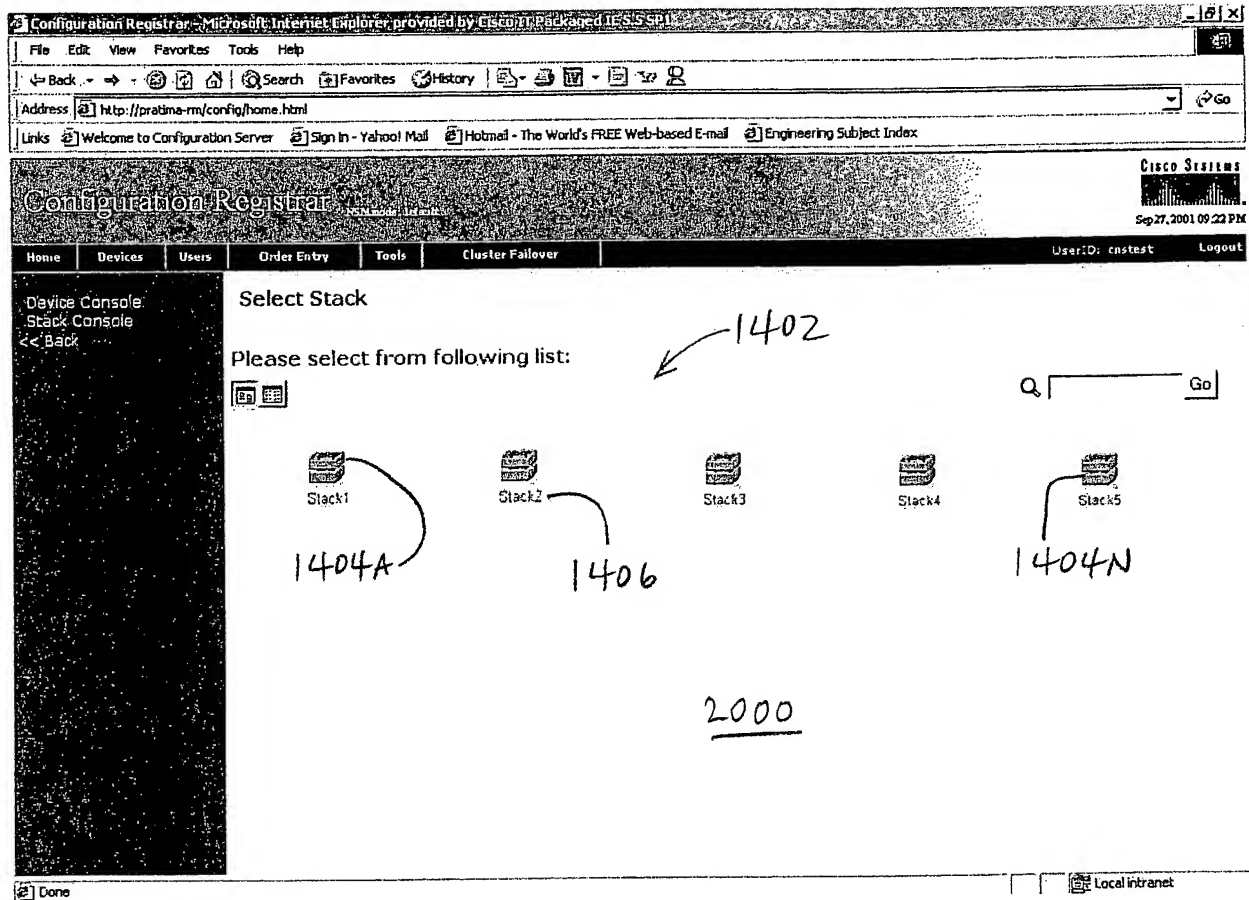


Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 20



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.,

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Fig. 21

Configuration Registrar: Microsoft Internet Explorer provided by Cisco IT, Packaged IE 5.5 SP1

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites History

Address http://pretime-rm/config/home.html

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Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

Device Console Stack Console << Back

Console Access to Stack Stack2

Allows you to send the same command to all the device on this stack.

Event Log

Date/Time	Type	Subject name	Message
7/18/01 3:33:35 PM	other	cisco.cns.config.cslog	n/a
7/18/01 3:33:35 PM	other	cisco.cns.config.cslog	n/a
7/18/01 3:33:35 PM	other	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	other	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	other	cisco.cns.config.cslog	n/a
7/18/01 3:37:11 PM	other	cisco.cns.config.cslog	n/a

Switch View of Event Log: Formatted

2102A 2102 2104 2106 2108 2110 2102N 2100

Command: Send

2114 2116

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

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Fig. 22

Configuration Registrar: Microsoft Internet Explorer provided by Cisco ITPackaged 10.0.5.50

File Edit View Favorites Tools Help

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Address http://pretime-rm/config/home.html Go

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Configuration Registrar Cisco Systems  
Sep 27, 2001 09:22 PM

Home Devices Users Order Entry Tools Cluster Failover UserID: cnstest Logout

Device Console  
Stack Console  
<< Back

Console Access to Stack Stack2 2112 Switch View of Event Log: Unformatted

Allows you to send the same command to all the device on this stack.

Execution log

```
9/19/01 11:54:45 PM - cisco.cns.exec.cmd.c7200-2
show running
9/19/01 11:54:46 PM - cisco.cns.exec.rsp.c7200-2
Building configuration...
Current configuration : 1296 bytes
!
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname c7200-2
!
enable password cisco
!
ip subnet-zero
!
```

2202

Command: 2100 Send

2114 2116

Done Local intranet

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

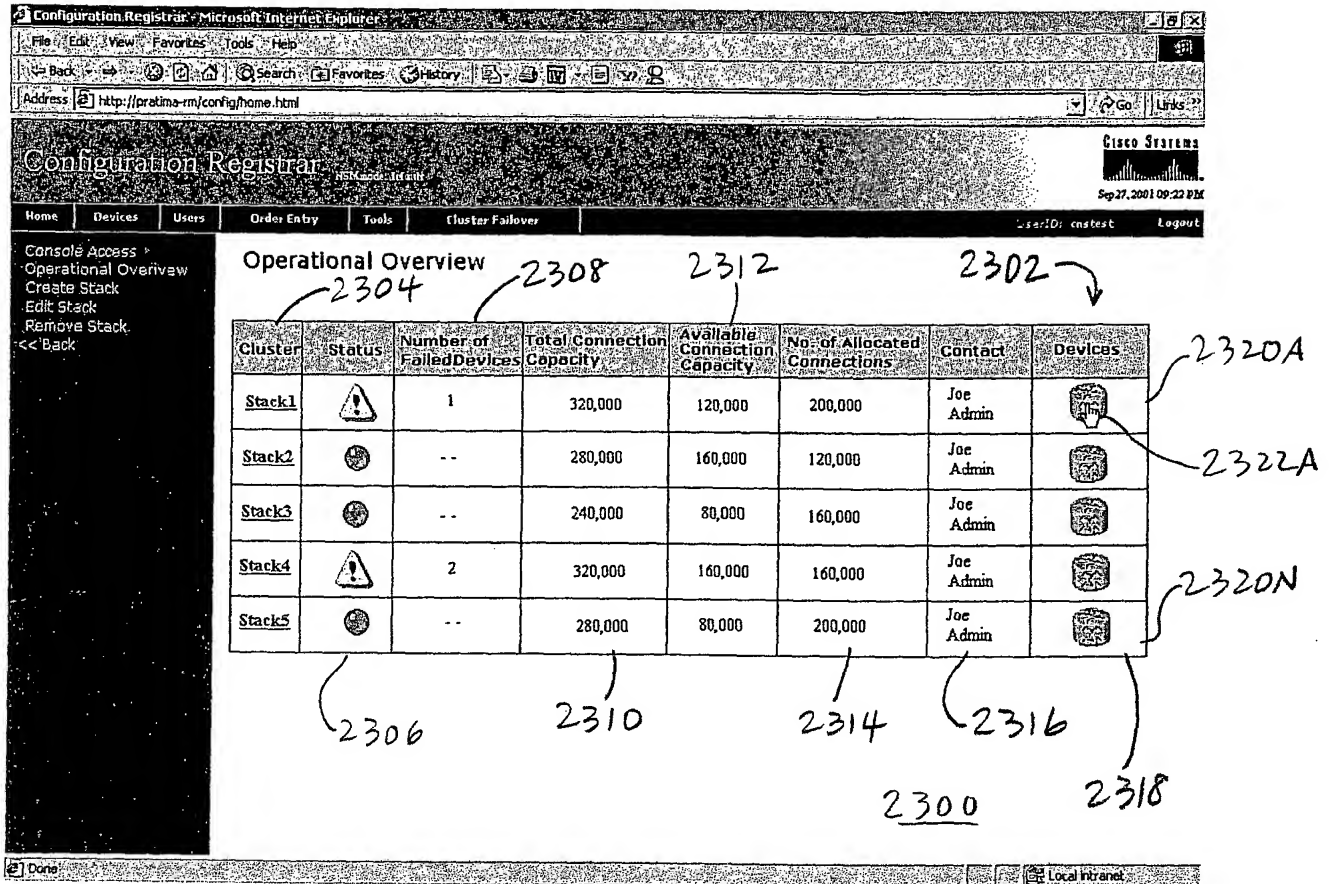
Inventor(s): Arnold Stamler, et al:

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Fig. 23





Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al.

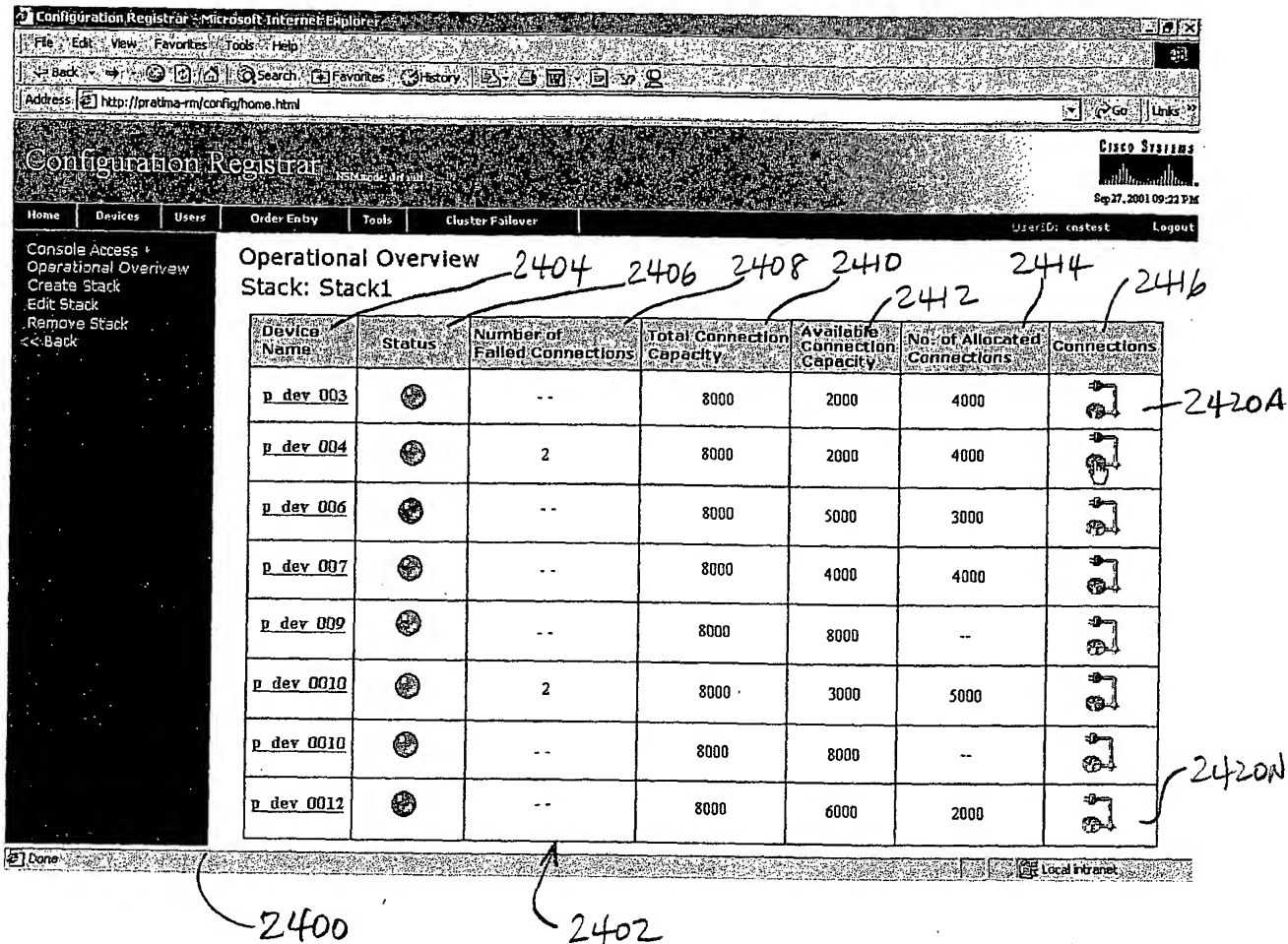
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Fig. 24



Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
POINT FOR A NETWORK DEVICE CLUSTER

Inventor(s): Arnold Stamler, et al. .

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Fig. 25

Configuration Registrar: Microsoft Internet Explorer

Address: http://prattima-rm/config/home.html

Configuration Registrar

Home Devices Users Order Entry Tools Cluster Failover

UserID: cnstest Logout

Console Access >  
Operational Overview  
Create Stack  
Edit Stack  
Remove Stack  
<< Back

Operational Overview

Stack: Stack1 Switch1: p\_dev\_004

Failed Connections View

Connection Name	Attribute 1	Attribute 2	Attribute 3	Attribute 4	Status
Connection1					!
Connection2					!

2500

2504

2506

2508

2502

2510

2512

2516

2514

Title: METHOD PROVIDING A SINGLE CONSOLE CONTROL  
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Inventor(s): Arnold Stamler, et al.

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Fig. 26

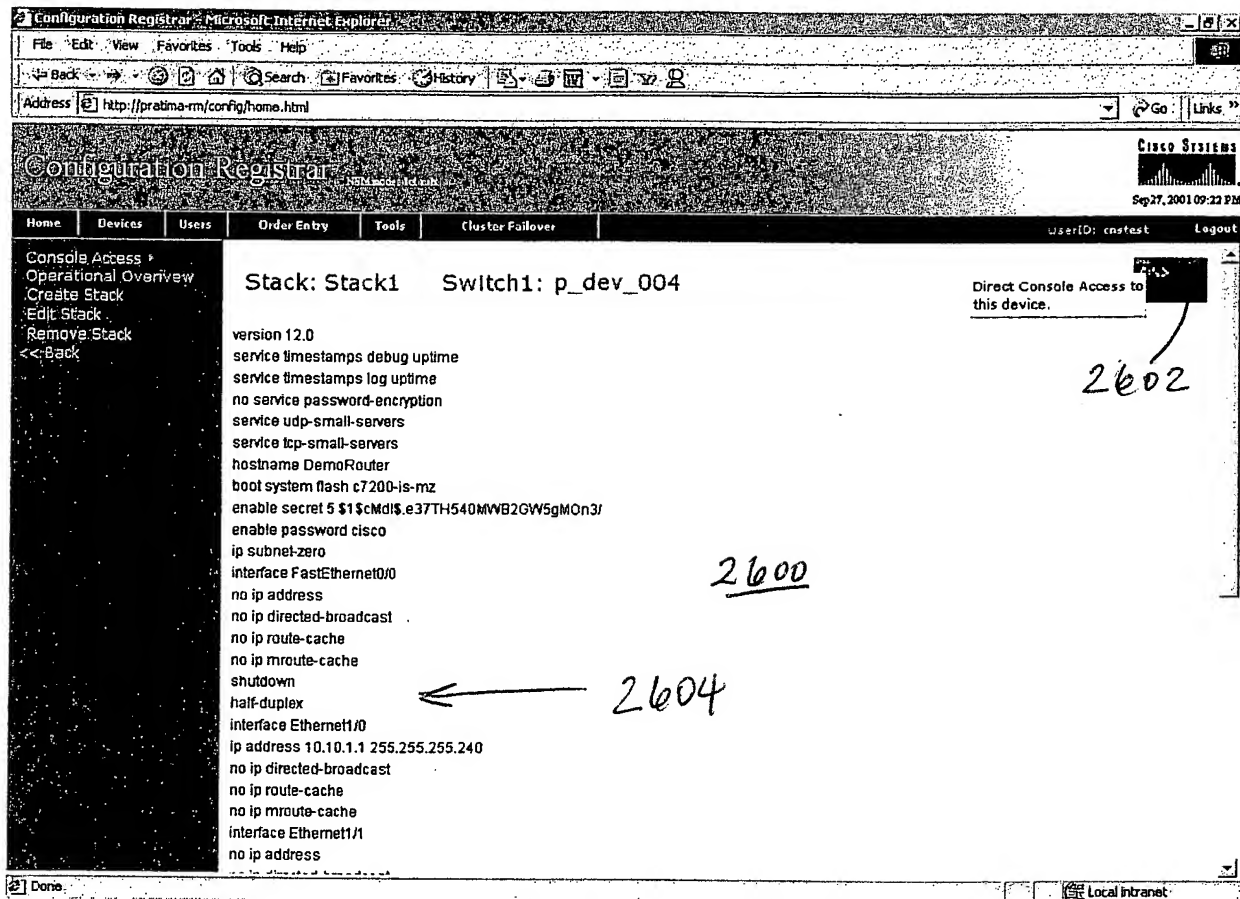


FIG. 27

